Patent Claims

1. Method for the conversion of a cytosine base, in a nucleic acid to an uracil base comprising:

   a) providing a solution that contains a nucleic acid,

   b) providing guanidinium hydrogen sulfite and preparing a solution comprising guanidinum and sulfite ions,

   c) mixing the solutions from step a) and b),

   d) incubating the solution obtained in step c) containing the nucleic acid and guanidinium and sulfite ions whereby the nucleic acid is deaminated,

   e) incubating the deaminated nucleic acid under alkaline conditions whereby the deaminated nucleic acid is desulfonated, and

   f) isolating the deaminated nucleic acid.

2. The method according to claim 1, wherein the concentration of guanidinium ions and sulfite ions is between 0.1 to 8 M.

3. The method according to claim 1, wherein the pH of the solutions in step b) and c) is less than 7.0.

4. The method according to claim 1, characterized in that the incubation temperature in step d) and e) is between 0 °C and 90 °C.

5. The method according to claim 1, wherein the incubation time in step d) is between 30 min ~~to~~ and 48 hours.

6. The method according to claim 1, wherein step e) is performed by adding an alkaline solution or buffer, or a solution containing ethanol, sodium chloride and sodium hydroxide.

7. The method according to claim 1, wherein the incubation temperature in step e) is between 0 °C and 90 °C.

8. The method according to claim 1, wherein the incubation time in step e) is between 5 min and 60 min.

9 – 12 Canceled.

13. A kit containing guanidinium hydrogen sulfite and plasticware for performing a reaction in which a cytosine base in a nucleic acid is converted to a uracil base.

14 Canceled.